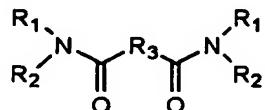


CLAIMS

1. An extractant for palladium comprising a sulfur-containing diamide compound represented by the following structural formula (1):

(1)



wherein R₁ and R₂ each represent a group selected from:

a chain hydrocarbon group having 1 to 18 carbon atoms which may be branched,

an alicyclic hydrocarbon group having 1 to 10 carbon atoms, and

an aromatic hydrocarbon group having 1 to 14 carbon atoms; and

R₃ represents a group represented by $\{(CH_2)_nS(CH_2)_m\}_L$ wherein n, m and L each represent an integer of from 1 to 4.

2. A method for separating palladium, which comprises bringing an aqueous solution containing palladium into contact with an organic phase containing the extractant for palladium according to claim 1 in an acidic condition, thereby extracting palladium from the organic phase.

3. A method for separating palladium, which comprises subjecting the palladium extracted by the organic phase according to claim 2 to a back-extraction with an aqueous solution of hydrochloric acid containing thiourea, thereby obtaining an aqueous solution containing palladium.

4. A method for separating and recovering platinum group metals including palladium, platinum and rhodium from a treated solution containing platinum group metals and base metals, which comprises:

neutralizing said treated solution containing platinum group metals including palladium, platinum and rhodium and base metals, thereby separating and eliminating, as a precipitate, metals other than the platinum group metals coexisting in said solution (first step);

bringing said solution containing platinum group metals including palladium, platinum and rhodium into contact with the extractant according to claim 1 comprising a sulfur-containing diamide compound represented by the structural formula (1), thereby separating and recovering palladium from an acidic solution containing palladium (second step);

bringing said extractant for palladium containing palladium into contact with an aqueous solution of hydrochloric acid containing thiourea to recover palladium, thereby obtaining palladium (third step); and

bringing said aqueous solution containing platinum and rhodium, which is obtainable in the second step, into contact with a tributylphosphoric acid-based extractant to extract and separate platinum from rhodium, thereby separating and recovering platinum and rhodium (fourth step).